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⑮ 考案の名称 建築用板

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明細書

1. 考案の名称

建築用板

2. 実用新案登録請求の範囲

[1] 窯業系材にて形成された板材の少なくとも上部に水平方向に連続した固着部を形成し、この固着部の表面に固着具打ち込み場所指定用の切欠を設け、この切欠に対応するように固着部の内部に固着具誘導用の空洞部を設けて成る建築用板。

[2] 空洞部の径を固着具の径と略同径として成る実用新案登録請求の範囲第1項記載の建築用板。

3. 考案の詳細な説明

[技術分野]

本考案は壁体の外面に張られる建築用板の構造に関するものであって、詳しくは建築用板に設けた切欠と空洞部とを介して固着具により建築用板を壁体の外面や内面に張る場合の建築用板の取付構造に関するものである。

[背景技術]

従来、板材1'を壁体6'に取付ける場合、作業者の姿勢や取付場所の不具合、取付工具の違い等によって、固着具5'の壁体6'への打ち込み角度が第7図に示すように他方へずれてしまうことがあり、このため固着具5'を壁体6'へ打ち込みにくく施工を行いにくかった。また固着具5'を斜めに打ち込んで板材1'を壁体6'に取付けた場合には、固着具5'の頭が壁体6'より突出した状態となり外観が悪いと共に強度的にも強く壁体6'に板材1'を取付けることができなかった。

【考案の目的】

本考案は叙述の点に鑑みてなされたものであって、本考案の目的とするところは建築用板を固着具により壁体に取り付ける場合に建築用板への固着具の打ち込み角度が多少ずれたとしても打ち込み方向を指定して壁体に対して略垂直に固着具を打ち込むことができる建築用板を提供するにある。

【考案の開示】

本考案建築用板は窯業系材にて形成された板材

1の少なくとも上端部に水平方向に連続した固着部2を形成し、この固着部2の表面に固着具打ち込み場所指定用の切欠3を設け、この切欠3に対応するように固着部2の内部に固着具誘導用の空洞部4を設けたものであって、上述のように構成することにより従来例の欠点を解決したものである。つまり、上記のように構成することにより固着具5の打ち込み方向を切欠3と空洞部4とにより指定でき、また、固着具5を多少ずれた角度で板材1に打ち込んだとしても固着部2の内部に設けた空洞部4により固着具5はガイドされ壁体6に対して略垂直に打ち込むことができ、固着具5の頭が板材1の表面に斜めに突出することがなく、外観が良いものである。更に壁体6に対して略垂直に固着具5を打ち込むことができるので、強度的にも強く板材1を壁体6に取付けることができる。更に板材1の固着部2の内部に空洞部4を設けることで、板材1の製造上の材料を削減することができ、固着具5の打ち込み位置において割れや欠けが発生するのを防止することができる。

以下本考案を実施例により詳述する。

第1図乃至第2図は本考案の第1実施例を示し、
黒業系材にて形成された板材1の上部と下部に夫々水平方向に連続した固着部2、2を設けてある。
上部の固着部2の上端縁の表面側には上方向に突出した係止突縁2aを突設してあり、裏面側には壁体1へ当接するための当接部2bを形成してある。
下部の固着部2は上記係止突縁2aと嵌合自在な形状であって、裏面側には裏面外方に向かって突出した係止凹縁2cを形成してある。係止凹縁2cの表面側からは下方向に向かって延出した延出縁2dを設けてあり、延出縁2dの垂直方向の中央部と先端部とには板材1の裏面側に向かって突条2e、2eを夫々突設してある。上部の固着部2の表面には固着具打ち込み場所指定用の切欠3を設けてあり、この切欠3に対応するように固着部2の内部に板材1の表裏方向に長い形状の固着具誘導用の空洞部4を設けてある。本考案を実施するにあたっては次のように行う。第2図に示すように壁体6の下部に板材1を配置して上端部の

固着部 2 の切欠 3 を目印にして切欠 3 より壁体 6 に向かつて釘等の固着具 5 を打ち込んで、壁体 6 に板材 1 を取付ける。そして取付けた板材 1 の上端部の固着部 2 の係止突縁 2 a に別の板材 1 の下端部の固着部 2 の係止凹縁 2 c を係止するようにして別の板材 1 を取付けた板材 1 の上部に配置すると共に上端部の固着部 2 の切欠 3 より固着具 5 を打ち込んで板材 1 を壁体 6 に取付ける。このようにして連続して壁体 6 に板材 1 を取付ける。上記のように固着部 2 の内部に空洞部 4 を設けることで第 3 図に示すように固着具 5 の板材 1 への打ち込み角度が他方へずれたとしても固着具 5 を壁体 6 に打ち込んでいくにつれて空洞部 4 により固着具 2 の先端は壁体 6 に対して略垂直となるようにガイドされて壁体 6 に対して略垂直に固着具 5 を打ち込むことができる。更に壁体 6 に対して固着具 5 を略垂直に打ち込むことにより壁体 6 に対して強度的に強く板材 1 を取付けることができる。また固着部 2 に空洞部 4 を設けることにより板材 1 の固着具 5 の打ち込み位置での割れや欠け等の

発生を防止することができる。また上記空洞部 4 の上下に別の空洞部 4 を設けることにより板材 1 の製造上の材料を削減することができる。第 4 図乃至第 5 図は本考案の第 2 実施例であって、板材 1 を壁体 6 に踵下見張り状に張るもので、この実施例の場合にも固着具 5 は壁体 6 に対して略垂直に打ち込むようにするために空洞部 4 の方向は壁体 6 に対して略垂直となるように板材 1 に対してやや傾いた状態で設けてある。第 6 図は本考案の第 3 実施例を示し、平板状の板材 1 を壁体 6 に取付けたものが示されている。この板材 1 の上端部の固着部 2 の上面の裏面側からは上方向に延出した係止突縁 7 を上部が段状となるように延出しており、下部の固着部 2 の底面の表面側からは係止突縁 7 と係止自在なように逆段状となった係止突縁部 8 を設けてある。このように構成した場合にも上述した実施例と同様の効果が得られるものである。

〔考案の効果〕

本考案は叙述のように板材の少なくとも上部に

水平方向に連続した固着部を形成し、この固着部の表面に固着具打ち込み場所指定用の切欠を設け、この切欠に対応するように固着部の内部に固着具誘導用の空洞部を設けたので、固着具の打ち込み方向を切欠と空洞部とにより指定することができ、固着具を多少ずれた角度で板材に打ち込んだとしても固着部の内部に設けた空洞部によりガイドされ壁体に対して略垂直に固着具を打ち込むことができ、固着具の頭が板材の表面に斜めに突出することがなく、外観が良いものである。更に壁体に対して略垂直に固着具を打ち込むことができるので、強度的にも強く板材を壁体に取り付けることができる。また板材の固着部の内部に空洞部を設けることで、板材の製造上の材料を削減することができると共に固着具の打ち込み位置での板材の割れや欠けの発生を防止することができる。

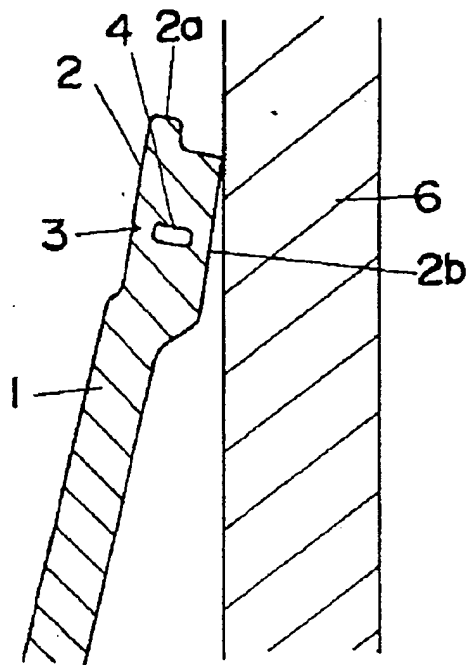
4. 図面の簡単な説明

第1図は本考案の一実施例の要部の拡大断面図、第2図は同上の全体断面図、第3図は同上の固着具の動作状態を示す断面図、第4図は同上の他の

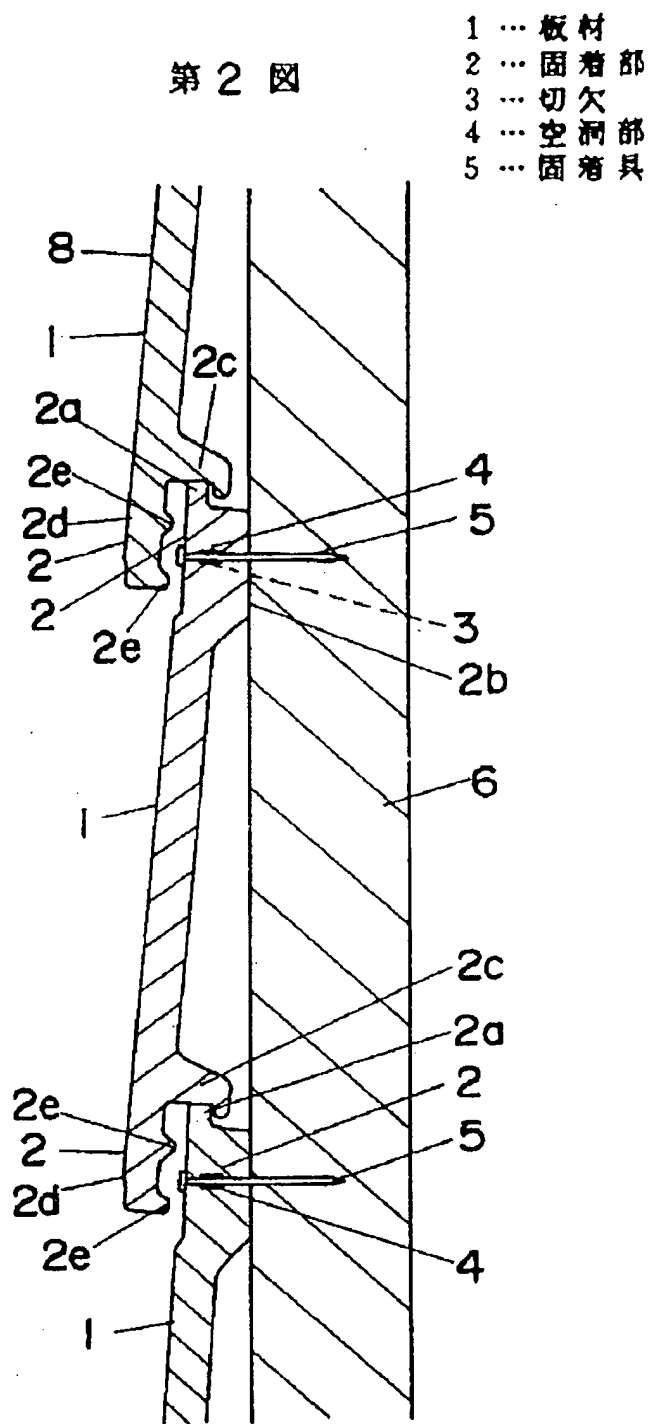
実施例の要部の断面図、第5図は同上の他の実施例の断面図、第6図は同上の更に他の実施例の断面図、第7図は従来例の断面図であって、1は板材、2は固着部、3は切欠、4は空洞部、5は固着具である。

代理人 弁理士 石 田 長 七

第 1 図

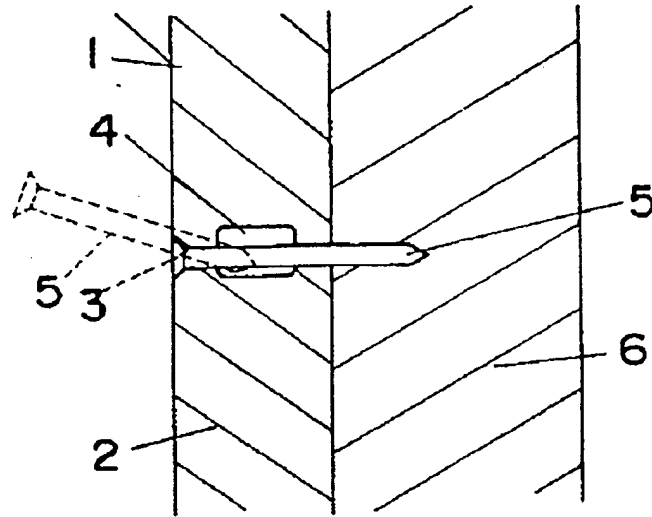


第 2 図

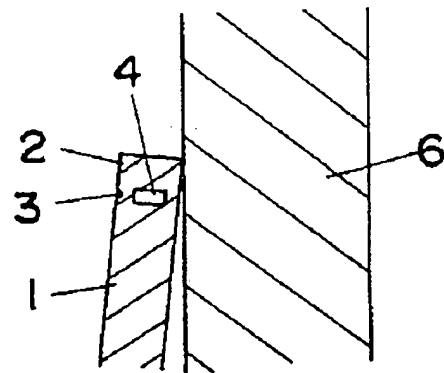


- 1 ... 板 材
- 2 ... 固 着 部
- 3 ... 切 欠 部
- 4 ... 空 洞 部
- 5 ... 固 着 具

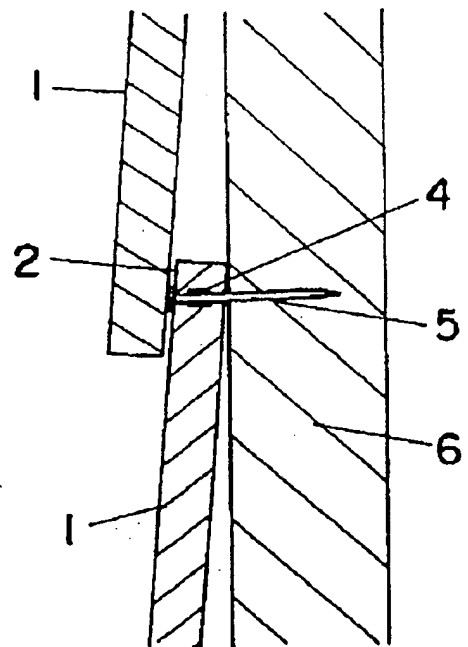
第3図



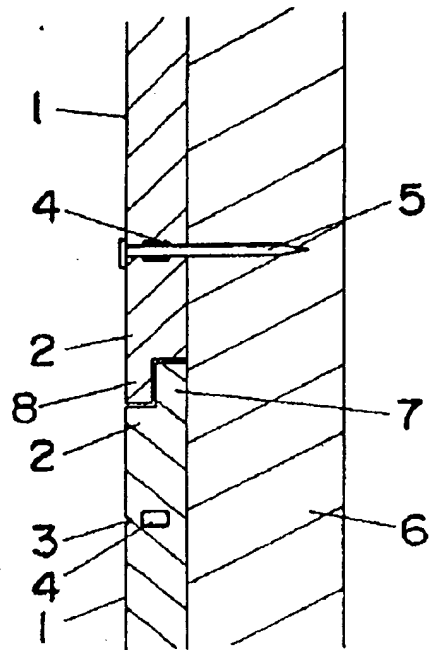
第4図



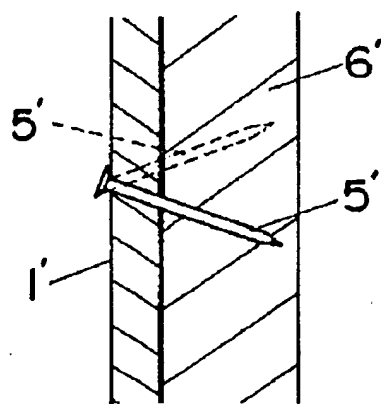
第5図



第 6 図



第 7 図



Japanese Kokai Utility Model No. Sho 64[1989]-50541

JAPANESE PATENT OFFICE

PATENT JOURNAL (U)

KOKAI UTILITY MODEL NO. SHO 64[1989]-50541

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Examination Request:	Not filed

ARCHITECTURAL SIDING BOARD

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Applicant:	Matsushita Electric Plant, Ltd. 1048 Oazakadoma, Kadoma-shi, Osaka-fu
Agent:	Choshichi Ishida, patent attorney

[There are no amendments to this patent.]

Claims

1. An architectural siding board characterized in that a fixing portion is formed continuously in the horizontal direction in at least the upper end part of the board and is made of ceramic material; in that a notch is formed on the surface of said fixing portion to locate the

position for driving a fastener; and in that a cavity portion for guiding the fastener is formed in the interior of the fixing portion corresponding to said notch.

2. The architectural siding board of Claim 1 characterized in that the diameter of the cavity portion is formed to match that of the fastener.

Detailed explanation of the invention

Technical field

The present design pertains to the structure of an architectural siding board that is applied to the outer surface of a wall. More specifically, the present design pertains to an attachment structure for an architectural siding board when it is applied to the outer surface or inner surface of a wall by means of the notch and cavity portion formed in the architectural siding board.

Background technology

In the prior art, when board (1') is to be attached to wall (6'), if the worker is positioned incorrectly with respect to the attachment site or if the wrong tools are used, the angle at which fastener (5') is driven into wall (6') could deviate, as shown in Figure 7. Consequently, it may be difficult to drive fastener (5') into wall (6'), making attachment of board (1') difficult to perform. Also, if fastener (5') is driven obliquely into wall (6'), the head of fastener (5') will protrude from wall (6'), which mars the appearance and makes it impossible to attach board (1') securely to wall (6').

Purpose of the design

The purpose of the present design is to solve the aforementioned problems of the prior art by providing a architectural siding board characterized in that when the architectural siding board is attached to the wall by means of a fastener, a driving direction for driving the fastener that is approximately perpendicular to the wall can still be established, even if the driving angle of the fastener into the architectural siding board deviates slightly.

Disclosure of the design

The purpose of the present design is to solve the aforementioned problems of the prior art by providing an architectural siding board characterized in that fixing portion (2) is formed continuously in the horizontal direction in at least the upper end part of board (1) made of a ceramic material; in that notch (3) is formed on the surface of said fixing portion (2) to locate the position for driving a fastener; and in that cavity portion (4) for guiding the fastener is formed in the interior of fixing portion (2) corresponding to said notch (3). That is, by means of said constitution, the driving direction of fastener (5) can be assigned by notch (3) and cavity portion

(4). Even when fastener (5) is driven into board (1) with certain angular deviation, it is still possible to drive it in approximately perpendicularly to wall (6) since fastener (5) will be guided by cavity portion (4) formed inside fixing portion (2), and the head of fastener (5) will be not exposed obliquely on the surface of board (1), which provides a favorable appearance. In addition, because fastener (5) can be driven in approximately perpendicularly to wall (6), board (1) can be securely attached to wall (6). In addition, by locating cavity portion (4) inside fixing portion (2) of board (1), the amount of material used to manufacture board (1) can preferably be reduced and cracks and voids can preferably be prevented from occurring where fastener (5) is inserted.

In the following, an explanation will be given regarding the application examples of the present design.

Figures 1 and 2 illustrate Application Example 1 of the present design. In this application example, the upper and lower portions of board (1) made of a ceramic material are processed to have fixing portions (2), (2) formed continuously in the horizontal direction. On the outer surface side of the upper end edge of upper fixing portion (2), engagement protrusion edge (2a), which protrudes upwardly, is formed as a protrusion. On the inner surface side, contact portion (2b) is formed for contacting wall (1) [sic; (6)]. Lower contact portion (2) is formed with a shape that can be readily fitted to engagement protruding edge (2a). On the inner surface side, engagement recessed edge (2c) is formed so that it protrudes towards the outer side of the inner surface. From the outer surface side of engagement recessed edge (2c), downwardly-extending edge (2d) is formed. On the central portion and end portion in the perpendicular direction of extending edge (2d), protruding strips (2e), (2e) are formed that protrude towards the inner surface side of board (1). On the surface of upper fixing portion (2), notch (3) for locating the position for driving the fastener is formed, and, corresponding to said notch (3), cavity portion (4) is formed with an elongated shape in the thickness direction of board (1) in fixing portion (2) for guiding the fastener. According to this embodiment, the operation is performed as follows. As shown in Figure 2, board (1) is placed on the lower part of wall (6), and with notch (3) of fixing portion (2) at the upper end serving as a reference, fastener (5), such as a nail, is driven into wall (6) from notch (3) so that board (1) is attached to wall (6). Here, on engagement protruding edge (2a) at fixing portion (2) at the upper end of attached board (1), engagement recessed edge (2c) of fixing portion (2) of the lower end of another board (1) is engaged as said other board (1) is arranged above said attached board (1), and at the same time, fastener (5) is driven in from notch (3) of fixing portion (2) at the upper end to attach said other board (1) to wall (6). In this way, boards (1) can be attached consecutively to wall (6). Because cavity portion (4) is formed inside fixing portion (2) as described above, as shown in Figure 3, even when the angle for driving fastener (5) into board (1) deviates to the other side, since fastener (5) is driven into wall (6), cavity

portion (4) guides the end of fixing portion (2) approximately perpendicularly to wall (6), so that fastener (5) can be driven into wall (6) almost perpendicularly. In addition, by driving fastener (5) approximately perpendicular to wall (6), board (1) can advantageously be securely attached to wall (6). Also, the forming of cavity portion (4) in fixing portion (2), can advantageously prevent cracks, voids, etc., from occurring where fastener (5) is driven into board (1). Also, by arranging other cavity portions (4) above and below said cavity portion (4), it is possible to reduce the amount of material needed for manufacturing board (1). Figures 4 and 5 illustrate Application Example 2 of the present design. In this application example, board (1) is applied to wall (6) in partially overlapping fashion. In this application example, because fastener (5) is driven approximately perpendicularly to wall (6), the direction of cavity portion (4) is approximately perpendicular to wall (6) as it is set slightly inclined to board (1). Figure 6 is a diagram illustrating Application Example 3 of the present design. In this application example, flat board (1) is attached to wall (6). From the inside upper surface of fixing portion (2) at the upper end of board (1), outside rabbet (7) extends upwardly stepwise from the bottom surface of lower fixing portion (2), and inside rabbet (8) has an inverted step shape so that it can engage with outside rabbet (7). With this configuration, the same effects as those of said application examples can also be realized.

Effects of the design

As explained above, according to the present design, at least on the upper portion of the board, a fixing portion is formed continuously in the horizontal direction; on the surface of the fixing portion, a notch is formed for locating the position for driving the fastener; corresponding to this notch, a cavity portion for guiding the fastener is formed inside the fixing portion. Consequently, the driving direction of the fastener can be assigned by the notch and the cavity portion. Even when the fastener is driven into the board at a certain angle, because it is guided by the cavity portion formed inside the fixing portion, the fastener can be driven into the wall approximately perpendicular to it. The head of the fastener is not exposed obliquely on the surface of the board, so that the appearance is good. In addition, by driving the fastener approximately perpendicular to the wall, can advantageously be securely attached to the wall. In addition, because a cavity portion is formed inside the fixing portion of the board, it is possible to reduce the amount of material used to manufacture the board. At the same time, the generation of cracks and voids in the board where the fastener was driven in can be advantageously avoided.

Brief description of the figures

Figure 1 is an enlarged cross-sectional view illustrating the main portion of an application example of the present design. Figure 2 is an overall cross-sectional view illustrating said

application example. Figure 3 is a cross-sectional view illustrating the operation state of the fastener in said application example. Figure 4 is a cross-sectional view illustrating another application example. Figure 5 is a cross-sectional view illustrating another application example. Figure 6 is a cross-sectional view illustrating yet another application example. Figure 7 is a cross-sectional view illustrating the prior art.

- 1 Board
- 2 Fixing portion
- 3 Notch
- 4 Cavity portion
- 5 Fastener

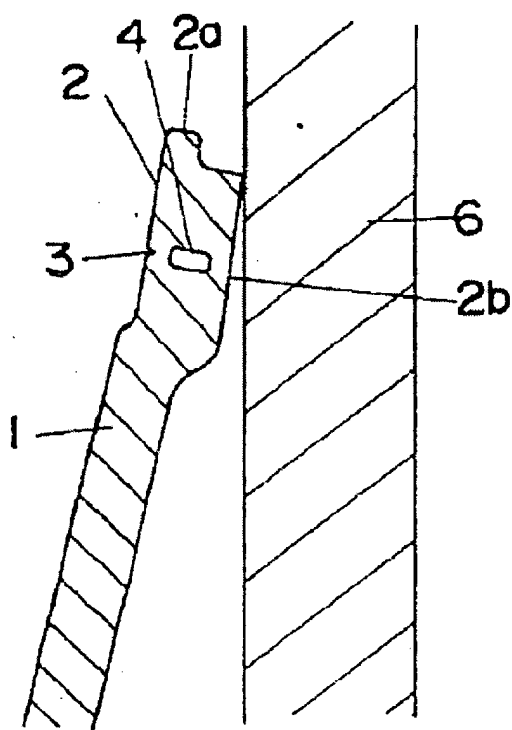


Figure 1

- 1 ... 板材
2 ... 固着部
3 ... 切欠部
4 ... 空洞部
5 ... 固着具

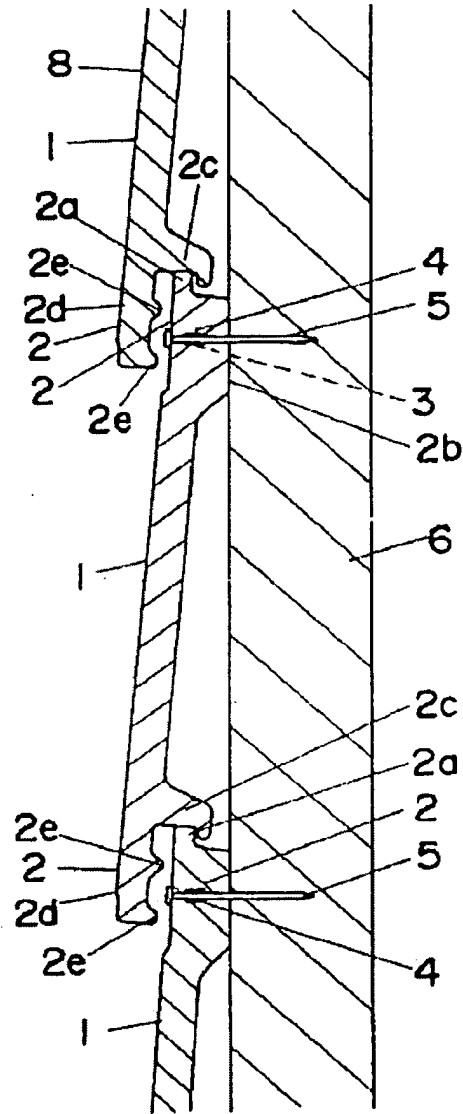


Figure 2

Legend:

- | | |
|---|----------------|
| 1 | Board |
| 2 | Fixing portion |
| 3 | Notch |
| 4 | Cavity portion |
| 5 | Fastener |

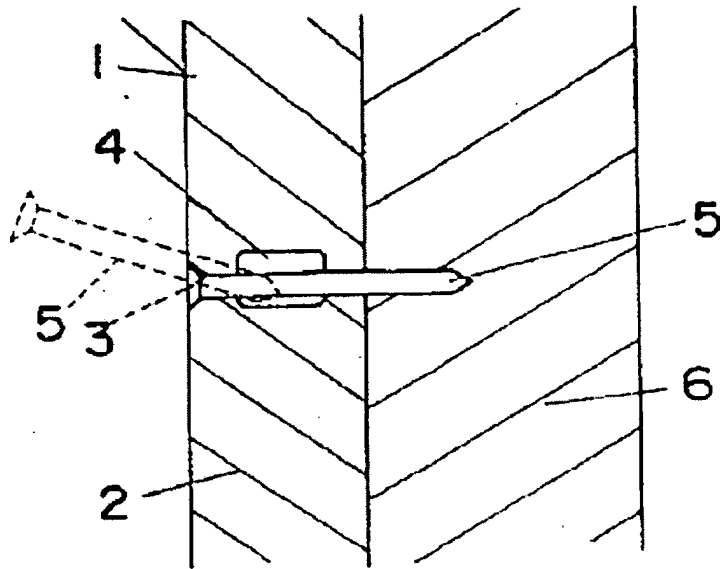


Figure 3

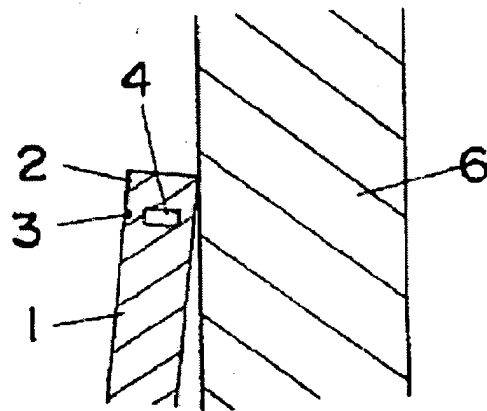


Figure 4

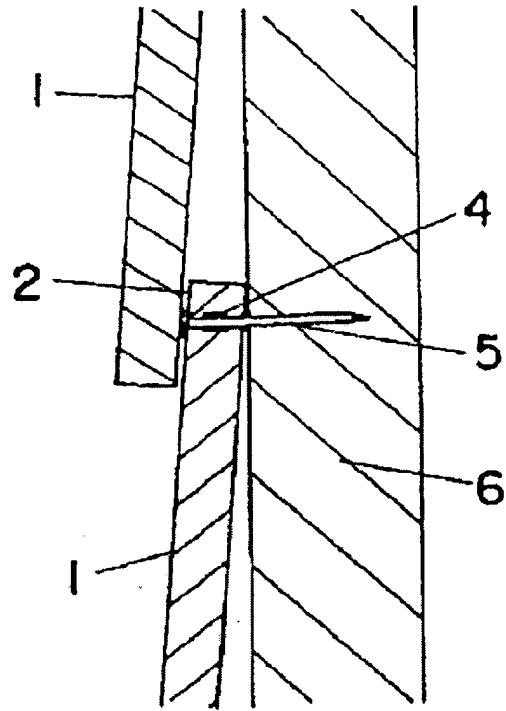


Figure 5

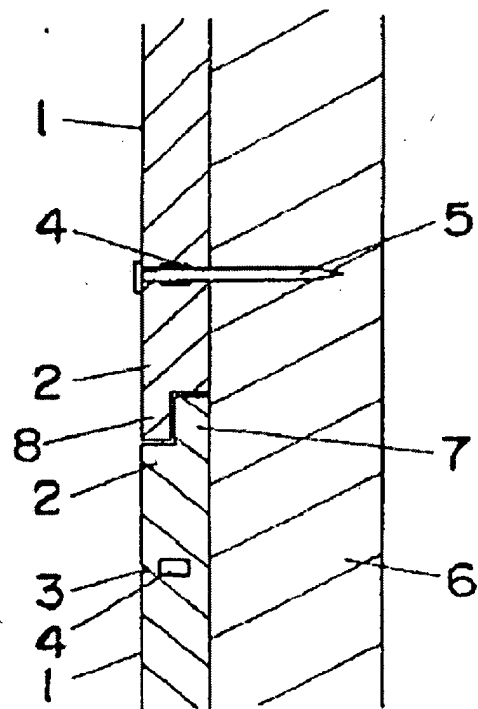


Figure 6

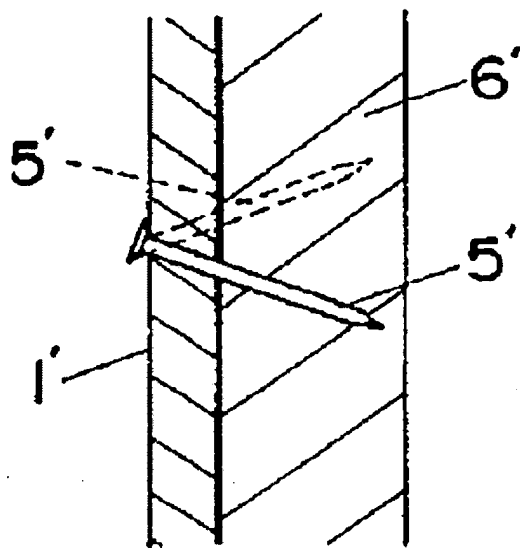


Figure 7